4275 C

LAW OFFICES OF
THOMAS N. LIPPE

ONE MARKET PLAZA
STEUART STREET TOWER, SIXTEENTH FLOOR
SAN FRANCISCO, CALIFORNIA 94105

TELEPHONE: 415-777-5600
FACSIMILE: 415-777-9809
INTERNET: LIPPE@aol.com

November 13, 1996

Bruce Halstead
U.S. Fish & Wildlife Service
1125 16th Street, Room 209
Arcata, CA 95521

John Munn
California Department of Forestry
1416 Ninth Street
Room 1516-4A
Sacramento, CA 95814

Re: Pacific Lumber Company Application for Incidental Take Permit, Habitat Conservation Plan and Sustained Yield Plan, Draft Environmental Impact Statement/Environmental Impact Report; Permit numbers PRT-828950 and 1157 and SYP 96-002

Dear Mr. Halstead and Mr. Munn:

This office represents the Sierra Club, the Environmental Protection Information Center ("EPIC") and the Pacific Rivers Council with respect to Pacific Lumber Company's Habitat Conservation Plan and incidental take permit applications under §10 of the federal Endangered Species Act and California Fish and Game Code §§ 2081, 2090, and Sustained Yield Plan under the California Forest Practice Rules, Article 6.75 (hereinafter the "HCP/SYP"), as well as the joint draft Environmental Impact Statement/Environmental Impact Report (hereinafter the "EIS/EIR") prepared for this project. I am writing to submit comments regarding these matters on behalf of the Sierra Club, the Environmental Protection Information Center ("EPIC") and the Pacific Rivers Council.

As a threshold matter, my review of the documents that I was able to obtain from NMFS relating to this project did not disclose an actual "signed and dated" application for an incidental take permit relating to coho salmon, which is required under 50 CFR § 222.22(b). Please confirm that such an application has been "received" by NMFS, as that term is used in 50 CFR § 222.24; otherwise, the ITP/HCP public review process will not have begun yet under subdivision (a) of § 222.24.

TNL-1

I. DEFINITIONS.

These comments will employ the same terms and definitions of those terms as the HCP/SYP and EIS/EIR.

II. STATUTORY STANDARDS.

These comments demonstrate that the proposed HCP/SYP and EIS/EIR fail to meet any or all of the statutory standards referenced in Volume VI, Part A of the HCP/SYP and in NEPA and CEQA.

III. THE PROCESS.

The September 28 agreement between the U.S., California and Maxxam is subject to enormous political and legal pressure. For instance, the agreement was executed only about six weeks before the 1996 election and was accompanied by significant election year publicity. As such, the federal government's acquisition of the Headwaters Forest grove has attained the status of a campaign promise, and there is enormous pressure on the various federal and state agencies involved to do whatever is necessary to implement the agreement. TNL-2

Perhaps more important, this agreement, if implemented, will cause Maxxam to withdraw its regulatory taking lawsuit currently pending in the U.S. Court of Claim (Case No. 96-257-L), as well as Maxxam's inverse condemnation case against the State of California currently pending in the Sacramento County Superior Court (Case No. 96 CS 01057). This represents another source of enormous pressure on the federal and state agencies involved in this process to ensure that Maxxam obtains approval of its Habitat Conservation Plan from the U.S. Fish & Wildlife Service ("Service") and of its Sustained Yield Plan from the California Department of Forestry and Fire Protection ("CDF"). These regulatory decisions should be driven by scientific determinations made according to these agencies' organic laws, not by concerns about potential financial liability for a regulatory taking of PL's property.

The EIS/EIR should have evaluated the extent to which these political and liability concerns may inappropriately influence the agencies' decision making.

In addition, 40 CFR § 1502.5 provides:

> An agency shall commence preparation of an environmental impact statement as close as possible to the time the agency is developing or is presented with a

proposal (Sec. 1508.23) so that preparation can be completed in time for the final statement to be included in any recommendation or report on the proposal. The statement shall be prepared early enough so that it can serve practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made (Secs. 1500.2(c), 1501.2, and 1502.2). For instance:

(a) For projects directly undertaken by Federal agencies the environmental impact statement shall be prepared at the feasibility analysis (go-no go) stage and may be supplemented at a later stage if necessary.

(b) For applications to the agency appropriate environmental assessments or statements shall be commenced no later than immediately after the application is received. Federal agencies are encouraged to begin preparation of such assessments or statements earlier, preferably jointly with applicable State or local agencies.

TNL-2 CON.

Thus, this EIS/EIR should have been prepared before the agencies executed the September 1996 agreement that commits them to approving PL's ITP application. The September 1996 agreement may not, technically speaking, prohibit FWS, NMFS and CDFG from denying the permits. Nevertheless, as a practical matter, the institutional investment in implementing the agreement, including the extraordinary effort to obtain funding from Congress and the California Legislature, have built up a juggernaut of institutional momentum that is causing your agencies to shrug off the inconvenient fact that the best available science contradicts the conclusions reached in the HCP/SYP and EIS/EIR. As a result, the EIS violates one of the fundamental rules of NEPA; that the EIS "shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made." 40 CFR §1502.2(g).

IV. INCOMPLETE DOCUMENTATION.

TNL-3

The HCP/SYP characterizes the results of numerous unpublished studies conducted on PL land upon which it relies to conclude that the project will comply with the governing statutes. The public cannot effectively review the scientific basis for this HCP/SYP without these unpublished studies available for review and comment. These studies may have relied on unsupported assumptions or employed unreliable methods to achieve their results.

Indeed, the permitting agencies: FWS, NMFS and CDF, are at a similar disadvantage. If you have not received these studies, you cannot determine whether this HCP/SYP is based on the "best scientific and commercial evidence available" as required by §7 of the ESA.

40 CFR § 1502.21. Incorporation by reference. "No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment." Sierra Club/EPIC request that copies of all of the unpublished studies be provided, and that the public comment period be extended for 30 days after Sierra Club/EPIC's receipt of these studies. TNL-3 con.

In Volume V, several of the maps are incomplete or fail to disclose how the information that is purportedly depicted on the maps was derived. For example, Map No. 7 has no color coding on it, is impossible to interpret and is unreadable. There is no information showing how the information in Map Nos. 12 and 13 were derived. Therefore, they are entirely conclusory and unreviewable. Map 36 is meaningless without information regarding the number of acres within FEMAT sized stream buffers.

Vol. I, p . 27, states: "The data used in calculating costs and revenues are proprietary and confidential; and if requested, will be made available to CDF for confidential audit."

V. FAILURE TO ADEQUATELY DESCRIBE ENVIRONMENTAL SETTING.

The HCP/SYP fails to present an accurate, full description of the environmental setting of the project as required by CEQA (CEQA Guidelines § 15125; *San Joaquin Raptor v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 722-723) and NEPA (40 CFR 1502.15, 1502.16). Examples include, without limitation:

1. The HCP/SYP and EIS/EIR misrepresent the environmental setting of the project by downplaying the existing significantly degraded condition of watershed resources and aquatic habitat across the ownership.

(a) In describing the listing of the coho in this area as "threatened" under the ESA, The EIS/EIR states: "The exact reasons for this decline are unclear, but may be related to ocean conditions, over harvest, stream conditions, land use practices, or a wide variety of other factors." This is disingenuous in the extreme. The Final Rule listing coho in this area clearly established the causal link between logging and catastrophic loss of coho habitat, stating: TNL-4

> Numerous studies have demonstrated that land use activities associated with logging, road construction, urban development, mining, agriculture, and recreation have significantly altered the quantity and quality of coho salmon habitat. . . . Of particular concern is the increased sediment input into spawning and rearing areas that results from loss of properly functioning riparian areas, land management

activities that occur on unstable slopes, and certain agricultural practices.

TNL-4 con.

Forestry has degraded coho salmon habitat through removal and disturbance of natural vegetation, disturbance and compaction of soils, construction of roads, and installation of culverts. Timber harvest activities can result in sediment delivered to streams through mass wasting and surface erosion that can elevate the level of fine sediments in spawning gravels and fill the substrate interstices inhabited by invertebrates.

Eighteen water bodies in northern California, including eight within the range of the Southern Oregon/Northern California Coast ESU, have been designated as impaired by the Environmental Protection Agency (EPA) under section 303(d) of the Federal Clean Water Act (CWA). These eight river basins include the Mattole, Eel, Van Duzen, Mad, Shasta, Scott, Klamath, and Trinity Rivers. The primary factors for listing these river basins as impaired are excessive sediment load and elevated water temperatures.

Although individual management activities by themselves may not cause significant harm to salmonid habitats, incrementally and collectively, they may degrade habitat and cause long-term declines in fish abundance (Bisson et al., 1992). Changes in sediment dynamics, streamflow, and water temperature are not just local problems restricted to a particular reach of a stream, but problems that can have adverse cumulative effects throughout the entire downstream basin (Sedell and Swanson, 1984; Grant, 1988). For example, increased erosion in headwaters, combined with reduced sediment storage capacity in small streams, from loss of stable instream large woody debris (LWD), can overwhelm larger streams with sediment (Bisson et al., 1992). Likewise, increased water temperature in headwater streams may not harm salmonids there but can contribute to downstream warming (Bisson et al., 1987; Bjornn and Reiser, 1991).

The most pervasive cumulative effect of past forest practices on habitats for anadromous salmonids has been an overall reduction in habitat complexity (Bisson et al., 1992), from loss of multiple habitat components. Habitat complexity has declined principally because of reduced size and frequency of pools due to filling with sediment and loss of LWD (Reeves et al., 1993; Ralph et al., 1994).

(Fed. Reg. Vol. 62, No. 87, May 6, 1997, Final Rule listing Southern Oregon /Northern California coho ESU as a threatened species; pp. 24588, 24592, 24593.)

(b) The HCP/SYP and EIS/EIR ignore a large body of documentation regarding

TNL-5

significant past impacts to watershed resources and aquatic habitat on PL land. See the Pacific Rivers Council summary of information regarding Yager Creek and Elk River (Exhibit 1), the June 1, 1998 memo from CDFG to Mark Stopher (Exhibit 2), and the numerous agency documents summarized in Exhibit 3 and contained in Appendix 3. TNL-5 con.

(c) PL's use of an overall "disturbance index" described in Volume II, Part E is highly misleading. The HCP/SYP sets 20% as the threshold for considering a WAA significantly impacted. But the use of this disturbance index is meaningless given that all of the WAA's have been assigned disturbance indices well below 20%, a result clearly inconsistent with the facts. (*See* Vol. I, p. 16, Table 5.) Many streams in these various WAAs are seriously degraded. This fact is obscured by many defects in this HCP/SYP, including (1) the use of an invalid disturbance index, (2) aggregation of the data for all streams across these very large watershed assessment areas, and (3) misvaluation of various habitat features (*e.g.* at Vol. II, Part H, p. 20, Table 2) pool depth is valued as "moderate" when in many cases these pool depths should be considered "low" on the habitat value scale.) Therefore, the HCP/SYP and EIS/EIR should objectively evaluate current watershed conditions in each "planning watershed" as defined by the Forest Practice Rules. (*See* Comments of National Marine Fisheries Service dated November 21, 1996 attached hereto as Exhibit 4A.) TNL-6

(d) The HCP/SYP and EIS/EIR fail to describe the extent to which PL's own logging and roading has caused significant adverse effects on aquatic habitat. (See e.g. Exhibits 3, 10, 12, 16, 17, 18, 19, 22). PL presents no data to support its assertion that the "reference streams" it uses to downplay the effects of its management activities on the aquatic environment represent only natural conditions and processes. (See Vol. II, Part H, p. 5.) Further, all streams are different to some degree, and the data show that in an absolute sense, many of the PL's streams are in extremely poor condition. TNL-7

(e) Further, even if natural processes and conditions do account for some level of disturbance to the streams on PL's lands, natural processes tend to be stochastic rather than chronic. In other words, natural processes occur sporadically or intermittently, whereas timber management causes consistent discharge of sediments and other changes to watershed resources. As a result, fish cannot find safe refuges in non-disturbed areas and stream channel recovery processes are suppressed. TNL-8

(f) In describing "Prior Impacts to Watersheds" regarding the Mattole River at Table S-2 on page S-14, the EIS/EIR states "N/A." This is misleading and false because there is a significant body of historical and scientific information showing that the Mattole River has been subjected to and currently suffers from significant adverse impacts on water quality, fish habitat, anadromous fish populations including coho salmon and other TNL-9

watershed resources and values. Attached hereto as Exhibit 5 are numerous sources of information on the Mattole River that the HCP/SYP and EIS/EIR ignore. TNL-9 CON.

(g) Vol I of the HCP/SYP at p. 39 states:

As previously noted, monitoring data for Plan Area streams indicate that water quality is generally good. The Van Duzen, Eel, and Mattole rivers are "water quality limited" as defined in section 303(d) of the Clean Water Act. CDF has determined that in its opinion, five streams within the Plan Area have significant negative cumulative sediment impacts. These streams are Bear Creek, Jordan Creek, Stitz Creek, Elk River, and Freshwater Creek. The Van Duzen River flows through WAA 3. The Eel River and Bear, Jordan, and Stitz creeks are within WAA 4. The Mattole River flows through WAA 5. Elk River and Freshwater Creek are within WAA 1.

The HCP/SYP fails to mention that, in addition to the Mattole, Eel and Van Duzen rivers, Freshwater, Elk and Bear and Jordan creeks are also listed as impaired under CWA § 303 (see Exhibit 15). See also CDF findings of significant adverse cumulative sediment impacts in Bear Creek, Jordan Creek, Elk River, and Freshwater Creek and Stitz Creek in Exhibits 3, 12, 13, 14.

VI. FAILURE TO PRESENT AN ACCURATE, STABLE AND FINITE PROJECT DESCRIPTION.

The EIS/EIR does not contain or evaluate an accurate project description. See County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 193 ("An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR"); 40 CFR § 1502.4(a) (the EIS must properly define the proposed project); 50 CFR § 222.22(b)(4) (Each application must . . . include . . . A detailed description of the proposed activity, including the anticipated dates, duration, and specific location). Examples include, without limitation: TNL-10

1. The HCP/SYP fails to specify the "impact" of the proposed "incidental taking" and the "amount, extent and type of anticipated taking" of coho in violation of ESA § 7(b)(4)(i) and 50 CFR § 222.22(b)(5)(i).

2. The HCP/SYP requires that post harvest stand conditions in the RMZ's conform to size distribution requirements. (Vol. I, pp. 64, 65, 67 and Table 17 and Vol. IV, Part D, Section 1, pp. 33, 36 and Table 4). But the EIS/EIR states that these post harvest size distribution requirements that appear in the Table are merely "targets", not requirements, TNL-11

in the "interim" RMZ prescriptions. (EIS/EIR p.2-30, Table 2.5-3a). In addition, the HCP/SYP purports to present the same requirements in Tables on pages 9 and 10 of Part B of Vol. II, but the numerical targets are different! TNL-11 con.

3. All of the timber harvest prescriptions and mitigation measures that will be developed from post approval studies, such as those described in section VII below, are integral parts of the project, which is the ITP/HCP and the SYP. Yet these elements are entirely indeterminate. TNL-12

4. The HCP provides, at §1.2.2.2 re Class I Stream Buffers, that: TNL-13

> After each entry, PALCO will retain an additional 10 trees greater than 40 inches DBH per acre on each side of the watercourse. The trees can be counted entirely or partially within the RHB. If trees of this size are not available, the 10 largest trees in the RMZ will be retained. (Vol. IV, Part D, Section 1, p. 31)

According to Ms. Vicki Campbell of NMFS, PL takes the position that this "additional 10 trees" requirement is not "additional" to the basal area leave requirements of 300 sq. ft. and 240 sq. ft. for the Class I LEB and OB, respectively, set forth in that same section. (Dr. Robert Hrubes, personal communication). Thus the HCP is arguably, at least by PL, ambiguous on this point.

5. The "project" that the EIS/EIR discusses in the cumulative analysis is the HCP described in Vol IV of the HCP/SYP; not the logging and other management activities proposed in the SYP part of the document in Volume III. As a result, the analysis is solely of the effects that are likely to result from PL conforming its management to a set of prescriptions, mitigation measures and the results of future studies, some well defined and some not so well defined. Nowhere does the EIS/EIR evaluate the intensive logging program outlined in the SYP in Volume III. TNL-14

> The PL SYP presents a timber management program that entails a fundamental shift to high-impact, short-rotation, even-aged management in which inventories of mature timber will be substantially depleted over the next several decades. In fact, PL is, for the first decade, planning to harvest to the maximum extent allowable under California's very lax long term sustained yield regulations. For the first two decades, total harvests exceed total growth by 32% and 5%, respectively. Total harvest decreases each decade, for 60 years. PL's harvest plan calls for the continued liquidation of the remaining old growth stands outside of the protected areas. In the first decade alone, 2,236 acres of old growth will be clearcut. Company-wide old growth acres drop by 50% in the first 3 decades

and by 66% by decade 6. Of the 2.3 billion board feet of timber to be harvested in the first decade, 711 million board feet (30%) come from the harvest of old growth timber. By decade 6, the old growth is all but gone, contributing but a mere 9 million board feet of harvested volume. Late seral acres drop by 66% in the first 3 decades, while forest openings (recent clearcuts) increase by 300% in just 2 decades and the area occupied by young plantations increases by 193% by decade 3. These company-wide trends are accomplished primarily through the implementation of 20-40 acre clearcuts with planned subsequent rotations of 50-80 years. Of the 54,382 acres scheduled for harvest in the first decade, 34,903 acres (64%) will be clearcut, with 90% of those acres being planned for 50 or 60 year subsequent rotations with intensive treatments including pre-commercial thinning, herbicide applications and fertilizer application. With the exception of snags, there will be few if any natural forest attributes associated with these intensively managed plantations, primarily comprised of Douglas fir. In the first decade, 75% of all harvest areas will involve tractor yarding as opposed to less impactive cable yarding systems. In decade 2, that proportion increases to 84%.

TNL-14 CON.

(Dr. Hrubes comments; see also Exhibit 20).

The NMFS own regulations require that it specify the amount of "take" of coho that the project will cause. 50 CFR § 222.22. Yet nowhere does either the HCP/SYP or the EIS/EIR estimate the amount of "take" of coho that this radical reshaping of the landscape will cause. Nor do either of these documents evaluate the significance of the adverse impact of the amount of take of coho that the ITP will authorize.

VII. POST-APPROVAL STUDIES.

The HCP/SYP includes numerous provisions requiring post-approval studies to develop mitigation measures necessary to reduce or avoid significant adverse environmental impacts, including impacts to endangered or threatened species, in violation of CEQA (*Sundstrom v. County of Mendocino* (1988) 202 Cal. App.3d 296) and § 7 of the ESA (*Conner v. Burford,* 848 F. 2d 1441, 1454-57 (9th Cir.1988), cert. denied 489 U.S. 1012 and rendering compliance with § 10 of the ESA impossible. Since so much of the analysis and development of mitigation measures is left indeterminate and uncertain, approval of the ITP/HCP will violate § 7 because the agencies cannot "ensure" that the project will not jeopardize the species; and § 10 of the ESA because making the findings required by subparagraphs (A) and (B) of paragraph (2) of subdivision (a) of § 10 of the ESA in the face of such uncertainty will be arbitrary and capricious.

TNL-15

The following examples show that PL's application for an ITP is premature, and

should be denied at this time. There is no reason to issue an ITP for coho salmon at this time. The reasons PL is presenting the ITP application at this time are its desire to avoid liability for take of coho under § 9 of the ESA, its desire to reach a global settlement of its various disputes with the state and federal governments over the location, rate and volume of logging it can conduct so that it can resume logging its old growth forests. The only reason FWS and NMFS are seriously considering the ITP application at this time is that the federal and state governments have committed to issuing an ITP to PL as part of the September 1996 agreement with PL. TNL-15 CON.

In the future, when PL has gathered sufficient information to demonstrate compliance with § 10 of the ESA and presents sufficient information to allow the agencies to comply with § 7 of the ESA and CEQA, then perhaps an ITP would be appropriate. The central question for FWS, NMFS, CDFG and CDF is whether you will allow the fantastic pressure you are under to consummate the September 1996 agreement to override sound science and policy regarding this deeply flawed ITP/HCP/SYP.

As Dr. Frissel states in his comment letter:

> The information available in the SYP/HCP is sparse, patchy, and not amenable to analysis of temporal trends in population abundance over sufficient time spans (i.e., 20 years or more ideally [Ratner et al. 1997, Botsford and Brittnacher 1998]. In fact the mere presence of coho salmon appears to be a subject of dispute for many stream segments in the planning area. This is shocking and serious oversight given that the precarious status of coho and other species in northern California has been widely recognized for many years. . . . Such data are neither particularly difficult nor expensive to obtain; in fact it is far cheaper to conduct the necessary biological surveys than it is to prepare large and hasty plans and environmental analyses that attempt(unsuccessfully) to circumvent the need for actual biological data.

Examples of the many post approval studies proposed by the HCP/SYP include, without limitation:

A. WATERSHED ANALYSIS.

The Watershed Analysis process will determine most of the critical aquatic habitat protection measures that will be implemented as part of the HCP. These measures, in turn, form the basis for the determination in the HCP/SYP and the EIS/EIR that these documents comply with the statutory standards applicable to the federal and state permits and that the project will not have any significant adverse effects. These measures include, TNL-16

without limitation:

TNL-16 con.

(a) Whether RMZ's begin at the edge of Channel Migration Zone ("CMZ") or watercourse transition line. (Vol. IV, Part D, Section 1, §1.2.2.2 and 1.2.2.3; pp. 31, 35). Indeed, the NMFS has severely criticized the California Forest Practice Rules for using the watercourse transition line as the point from which to measure restricted harvest Watercourse and Lake Protection Zones, stating:

> "The use of the watercourse or lake transition line or top of bank as the point to begin measuring the WLPZ does not factor in side channels, flood plain, or potential channel migration. The protective buffering value of the WLPZ may be lost if the channel migrates further than the width of the WLPZ. . . . The watercourse and lake transition line may not encompass the total floodplain and potential migratory path of the channel. Floodplain functions, side channels, and backwaters can be impacted. Backwaters and side-channels are important rearing habitat for many salmonid juveniles (Sedell and Luchessa 1982, as cited in Spence et al. 1996)."

(P. 27, Effectiveness of the California Forest Practice Rules to Conserve Anadromous Salmonids; Analysis by the National Marine Fisheries Service, draft dated May 22, 1998 submitted with the comment letter by Mr. Brian Gaffney dated November 13, 1998). Several of the scientists who have commented on this project have echoed and expanded upon these criticisms. (Pess comments; Montgomery comments).

(b) Size of the Class I RMZ's up to 170' and Class II RMZ's up to 100'.

(c) Size of the Class I no-cut band ("RHB") between 30' and 170' and Class II no-cut band between 10' and 100'.

(d) Tree retention standards in the Class I LEB and OB and the Class II LEB for volume (basal area), number of trees and tree size class distribution (*i.e.* number of trees of various size classes per acre (Vol. IV, Part D, Section 1, pp. 33, 36).

(e) For Class III streams whether to establish no cut bands, size of ELZ's and EEZ's, etc.

PL's Freshwater Creek Watershed Analysis Module provides a detailed illustration of the very extensive studies that comprise Watershed Analysis. (Exhibit 8). In addition, the Washington State DNR watershed analysis manual that PL proposes to follow provides additional detail regarding the variety and number of post approval studies that must be

completed before sufficient information exists to mitigate impacts on coho salmon. (Exhibit 9.)

TNL-16 con.

PL's justification for deferring the development of mitigation measures to post approval watershed analysis is:

> The company is currently working under an "interim" strategy which, although very strong, is a "one size fits all" approach. The benefit of completing watershed analysis on PL land is that the management strategies can be tailored to the environmental factors and current influences that shape each watershed. . . . After watershed analysis is completed, specific prescriptions can be implemented that will maintain and/or enhance the aquatic environment based on the current conditions and the future needs identified in that area. PL expects that watershed analysis will result in site specific management prescriptions. Consequently, it can be used to modify some or all of the interim aquatic prescriptions described in this document."

(HCP/SYP, Vol IV, Part D, Section 1, § 1.2.9, p. 46).

This justification is undermined by several facts:

(i) PL can refuse to implement site specific prescriptions developed from watershed analysis with which it disagrees (subject to limits on this power under AB 1986). (HCP/SYP, Vol IV, Part D, Section 1, § 3.1.3.1, pp. 19-20).

(ii) Even the range of prescriptions for RMZ and no-cut buffer zones widths are restricted to a predetermined range (i.e. 30' to 170' for Class 1 streams; 10' to 100' for Class II streams). (HCP/SYP, Vol IV, Part D, Section 1, p.47).

(iii) The same is true for and mass wasting avoidance measures. (*Id.* p. 47).

(iv) Research indicates that watershed analysis does not usually result in site specific prescriptions that differ from "standard" rules. (Pess comments.)

B. INDETERMINATE WATERSHED ANALYSIS PROVISIONS.

TNL-17

Some portions of the Watershed Analysis process are still undetermined. Examples include, without limitation:

1. "Integration of the watershed analysis modules with the PWA erosion process still

needs development." (Vol. IV, Part D, Section 4, p. 2).

TNL-17 cont.

2. The HCP/SYP contains no hydrology module as part of Watershed Analysis.

C. MASS WASTING AVOIDANCE STRATEGY.

TNL-18

The mass wasting avoidance strategy set forth in the PL HCP/SYP involves provisions scattered across a number of documents that make it almost impossible to decipher the actual measures that compose the strategy.

The text on p 38-39 (HCP/SYP, Vol. IV, Part D, Section 1, § 1.2.2.5) sets interim standards for the mass wasting avoidance strategy.

The text on p. 46-47 (HCP/SYP, Vol. IV, Part D, Section 1, § 1.2.9) provides that site specific prescriptions will be applied after watershed analysis is complete, but that the "extent to which the interim strategy . . . may be modified by watershed analysis" is limited by "minimum and maximum" sideboards.

As a practical matter, the maximum sideboards for the post watershed analysis site specific prescriptions are very similar to the interim prescriptions. This is not immediately apparent because the text on p. 47 that describes the maximum sideboards for the post watershed analysis site specific prescriptions refers to other documents. The various documents are extremely confusing, so I have summarized the principal prescriptions for both the interim strategy and the maximum sideboards for post watershed analysis site specific prescriptions as follows.

- In areas rated "extreme" mass wasting potential, no harvest, heavy equipment or new roads unless recommended by PL's geologist and approved by CDF.

- In areas rated "high" or "very high" mass wasting potential, no heavy equipment off of roads and no new road construction unless recommended by PL's geologist and approved by CDF. (This means that cable yarding operations and clearcutting are allowed in these areas as a matter of course without notice to the agencies.)

- Mass wasting risk ratings will be developed using the Landscape Assessment of Geomorphic Sensitivity

- The process governing variations on the specific prescriptions for interim standards (Vol. IV, Part D, Section 1, p . 39) and for the post watershed analysis site specific prescriptions (Vol. IV, Part D, Section 1, p . 47) is as follows: PL must have its

geologist recommend alternatives in a report (see August 27 draft HCP/SYP set forth below), PL must consult with agencies (NMFS, FWS and CDFG) (see PPAP set forth below) and CDF makes the final determination.

TNL-18 CON.

The following document trail that establishes these standards is unreasonably complex, relying on several documents scattered throughout the HCP/SYP and ultimately, on a document that is not in the HCP.

TNL-19

1. First, the HCP/SYP, at Vol. IV, Part D, Section 1, p p. 38-39, § 1.2.2.5, provides:

1.2.2.5. Hillslope Management

The Hillslope Management-Mass Wasting process applies to all portions of PL's ownership, including inside the RMZs. The prescriptions in the RMZs for mass wasting will not be less restrictive than the riparian prescriptions developed as part of the interim or default strategies or through watershed analysis as appropriate and applicable to this Plan. [Note: Specific language identifying when geologic review is required and the appropriate geologic determination before alternate prescriptions can be used are still being discussed with the agencies. In the interim PL will use the following standards.] PL will not harvest or construct new roads in portions of its ownership with an "extreme" mass wasting potential, in inner gorges, headwall swales, or unstable areas without a geologist's report recommending alternative prescriptions that are approved by CDF. The professional registered PL geologist shall assess the influence of the proposed operation on the risk of hillslope failure. In areas where the potential for mass wasting is rated as "very high" or "high," PL will not operate heavy equipment off of existing roads or construct new roads, without a geologist's report recommending alternative prescriptions that are approved by CDF. The geologist's written report must accompany the THP when submitted for review. For portions of the ownership lacking geology and soils maps necessary to make a determination of risk, PL is responsible for providing site specific risk ratings based on review by a geologist. In most cases such determinations will be done as part of the THP approval process.

NMFS, CDFG and EPA or Regional Water Quality Control Board shall be notified of all THPs that are being submitted on areas of extreme, very high and high mass wasting potential in addition to inner gorges, headwall swales, and unstable areas, if the proposed operation goes beyond the default prescriptions. A registered geologist shall assess the influence of the proposed operation on the risk of hillslope failure and prepare a written report. If required (i.e., if prescriptions other than the defaults are being proposed), the geologist's report along with the THP will be sent to NMFS, CDF&G and either EPA, or the Regional Water Control Quality Board upon THP submission. If the notified agencies have concerns regarding the harvest proposal related to the risk of mass wasting, they may communicate such concerns to the RPF and CDF within 30 days of receipt of materials from PALCO or until the close of the public comment period, whichever is longer. As

TNL-19 CON.

mandated under the FPA, CDF, as lead agency for THP review, will consider all input and determine whether the mass wasting mitigation measures contained in the THP will avoid significant impacts. PL will treat all sites of exposed mineral soils, resulting from forestry activities within watercourses protection zones that are equal to or greater than 100 sq ft, or areas less than 100 sq ft which are on slopes greater than 30 percent if the site can deliver fine sediment to watercourses. Exposed mineral soil treatments can include revegetation or other erosion control measures including, but not limited to, seeding and mulching. Watercourse crossings will also be treated to avoid or minimize sediment delivery, using watershed analysis and/or road storm proofing protocols and road armoring standards to be used on all such crossings. Cable corridors (cable roads) that divert or carry water away from natural drainage patterns or channelize run-off that reaches watercourses will have waterbreaks installed at intervals as per the CFPRs (14 CCR 914.6).

2. Second, the HCP/SYP at Vol. IV, Part D, Section 1, p . 47, § 1.2.2.5 provides:

A mass wasting avoidance strategy will be implemented in all areas containing an extreme, very high, or high risk of mass wasting. The avoidance strategy will follow that outlined in the 7 January 1998 Interagency Aquatic Strategy (Section 3) as modified during pending agency negotiations. As currently written, maximum prescriptions for these areas can extend up to and include exclusion of all harvest and road building.

3. Third, the January 27, 1998 document mass wasting strategy, which is in the HCP/SYP at Vol. IV, Part D, Section 3, pp. 14-15, provides:

Mass Wasting Extreme, Very High and High Landslide Hazard Zones (including Inner Gorges)

Default: No Harvest [this default prescription as applied to high and very high risk areas is dropped in the modification described in the next paragraph]
No new roads
Process:

A. Apply default prescriptions per THP unless:
B. A team of a professional geologist, forester and at least 1 agency (NMFS, FWS, EPA, DFG, CDF or RWQCB) biologist(s) determines if alternative prescriptions are appropriate and what the prescriptions will entail.

- prescriptions put forward by the team are required component of the THP's
- in the case of unresolved disagreement among the team, the California State Division of Mines and Geology will make the final determination, taking into account the concerns of the other Team members
- report must be submitted with THP.
- the area of 50,271 acres of "no data" must be accounted for in a hazard rating prior to the final approval of the HCP

[Repeat of RMZ information]

- For mass wasting areas adjacent to Class I or II RMZ's (beyond the 170', 130' and 100', respectively), the Team must provide for potential large wood recruitment to streams in the prescriptions in addition to slope stability.
- a minimum prescription for these areas is that described in the Class I Outer Band and Class II Selective Entry Band
- For areas inside the 170', 130', or 100' RMZ that also fall in the extreme, very high or high landslide hazard zones, the Hillslope Management-Mass Wasting process applies
  - a minimum prescription for these areas is that described for each specific Band #1, 2 or 3, respectively

TNL-19 con.

Surface Erosion

- treat all sites of exposed mineral soils, caused by forestry activities, within RMZ's, EEZ's, and ELZ's that are equal to or greater than 100 sq ft.
- treat all sites less than 100 sq ft of exposed mineral soils in RMZ's, EEZ's, and ELZ's that are on hillslopes greater than 30% if the site can deliver fine sediment to the watercourse.
- treatments can include revegetation or other erosion control measures including but not limited to seeding and mulching
- watercourse crossings in RMZ's, EEZ's and ELZ's shall be treated to prevent sediment delivery.
- cable corridors that divert or carry water away from natural drainage patterns or to channelize run-off that reaches watercourses shall have waterbreaks installed at intervals as per skid trail prescriptions by Weaver et al. (1994)

4. Fourth, the January 27, 1998 document has been "modified" by the Pre-Permit Application Agreement in Principle, which is in the HCP/SYP at Vol. VI, Part C, p . 3, §1(b)iv, which provides:

> iv. In addition, prior to completion of the DNR process, the mass wasting avoidance strategy of PL's August 27, 1997, Draft HCP/SYP will be used along with harvest plan specific review and it will be extended to hill slopes and inner gorges where the potential for mass wasting is rated "high". If PL harvests in areas that have not been mapped for risk of mass wasting prior to completion of the DNR process, PL will identify areas of high, very high, and extreme mass wasting potential and follow its mass wasting avoidance strategy (referenced above). PL will consult with agency (NMFS, EPA, and CDFG) biologists in the development of timber harvest prescriptions for areas where the Registered Professional Geologist determines the appropriate prescription. The geologist's report and the recommended timber harvest prescription will be submitted with the THP.

5. Fifth, the August 27, 1997 Draft HCP/SYP, which is not provided in the HCP, states: TNL-19 CON.

d. Hillslope Management

To limit the potential for sediment loads from areas with high levels of risk for mass wasting, the following will be implemented.

1. Mass wasting potential will be assessed based on the geomorphic sensitivity index in Appendix 3.

2. In areas where the potential for mass wasting is rated "extreme", no harvesting and no new roads will be allowed unless a Registered Professional Geologist or Registered Professional Engineering Geologist determines that alternative prescriptions are appropriate for the area. The geologist's report must be submitted with the THP.

3. In areas where the potential for mass wasting is rated "very high", no new roads and no operation of heavy equipment off of existing roads will be allowed unless a Registered Professional Geologist or Registered Professional Engineering Geologist determines that alternative prescriptions are appropriate for the area. The geologist's report must be submitted with the THP.

6. Sixth, the "geomorphic sensitivity index" referenced in the August 27, 1997 Draft HCP/SYP as "Appendix 3" is actually reproduced in the current HCP/SYP at Vol. II, Part D. The text of this document is too lengthy to restate here, but it involves extensive post approval study for the purpose of rating the mass wasting risk of all areas that PL intends to log for the purpose of establishing site specific mitigation measures.

D. GRAVEL MINING. TNL-20

See Aldaron Laird comment letter.

E. THE EIS/EIR.

Additional examples of the EIS/EIR's reliance on post approval studies to develop mitigation measures necessary to avoid significant adverse impacts: timber harvest related mass wasting in Jordan Creek (p. 3.6-36), road related mass wasting (p. 3.6-42), hillslope erosion (p. 3.6-47), road surface erosion (p. 3.6-49), grazing, stream shade (p. 3.7-54), LWD recruitment (p. 3.7-63 to 3.7-68), leaf and needle litter (3.7-71), streambank stability (3.7-76), sediment control (3.7-79), fish (p. 3.8-39). TNL-21

VIII. POST-APPROVAL FEDERAL AGENCY PARTICIPATION.

TNL-22

The HCP/SYP includes numerous provisions requiring post-approval federal agency participation, oversight or approval, without any assurances that the agencies will have the resources to fulfill those functions. It is especially important for PL to provide funding for this purpose because it is widely acknowledged that CDF's enforcement is not adequate to protect aquatic habitat and coho salmon. (See e. g. Exhibit 21). Examples include, without limitation:

A. IN THE WATERSHED ANALYSIS PROCESS.

1. "The agencies will modify the methodology and modules to the specifics of the Pacific Lumber HCP." (Vol. IV, Part D, Section 4, p. 2, ¶ 5).

2. "Variations on the methodology and modules can be recommended by Pacific Lumber. Variations will be approved by the agencies." (Vol. IV, Part D, Section 4, p. 2, ¶ 5).

3. "Pacific Lumber will consult with the permitting agencies concerning the interdisciplinary structure of the scientific team, team composition, and selection criteria. The agencies will have approval authority over the structure of the team, selection criteria and the team members." (Vol. IV, Part D, Section 4, p. 2, ¶ 7).

4. "Pacific Lumber will consult with the permitting agencies concerning the contracts and work plans of the scientific team. And, the approval of the agencies must be obtained before work plans or contracts can be executed. (Vol. IV, Part D, Section 4, p. 2, ¶ 5).

5. "The final determination to proceed with prescriptions, developed as a result of the watershed analysis, is retained by the permitting agencies." (Vol. IV, Part D, Section 4, p. 2, ¶ 5).

6. "PALCO will work collaboratively with the Wildlife Agencies and other federal and state regulatory agencies to develop specific conservation and mitigation prescriptions for aquatic Covered Species necessary to achieve properly functioning riparian habitat conditions through the watershed analysis process. (a) At least one representative from PALCO and each of the Wildlife Agencies will serve on watershed analysis teams to develop specific prescriptions for each watershed within the Plan Area containing Covered Land for which PALCO elects to use the watershed analysis process. . . . (b) PALCO shall implement the specific conservation and mitigation prescriptions developed with the Wildlife Agencies through the watershed analysis process. In the event of a disagreement or lack of

agreement between PALCO and one or more of the Wildlife Agency team members regarding a specific prescription, either PALCO or one or more of the Wildlife Agencies shall notify the Regional Administrator, NMFS, the Regional Director, USFWS and the Director, CDFG, that PALCO proposes to implement a prescription not agreed upon by all team members. Upon the receipt of such notice, the Regional Administrator, Regional Director and Director shall have 45 days to reject in writing the proposed prescription, during which time the prescription shall not be implemented. The Wildlife Agencies will use their reasonable efforts to confer promptly and to arrive at a consistent position regarding the proposed prescription. If the Regional Administrator, Regional Director and Director all fail to reject the proposed prescription in the 45-day period, the prescription is deemed approved.

TNL-22 CON.

B. IN THE MASS WASTING AVOIDANCE STRATEGY.

See section VII.C. above.

IX. UNLAWFUL DELEGATION OF AGENCY AUTHORITY.

TNL-23

Many provisions of the HCP/SYP limit the exercise of discretion by FWS, NMFS and CDFG or otherwise constitute an unlawful delegation of agency authority to PL. *Assiniboine & Sioux Tribes v. Board of Oil and Gas*, 792 F.2d 782, 795 (9th Cir. 1986); *Carson Mobilehome Park Owners' Assn. v. City of Carson*, 35 Cal. 3d 184, 190 (1983). (unconstitutional delegation of authority occurs when a legislative body (1) leaves the resolution of fundamental policy issues to others or (2) fails to provide adequate direction for the implementation of that policy.) The U.S. Supreme Court has repeatedly held that state agencies cannot contract away their police powers. (*See, e.g.,* Stone v. Mississippi, 101 U.S. 814, 819 (1879); Atlantic Coast R.R. Line v. City of Goldsboro, 232 U.S. 548, 554-562 (1914); U.S. Trust Co. v. New Jersey, 431 U.S. 1, 24-25 (1977).) The same rationale prohibits federal agencies from contracting away their regulatory and public trust authorities, unless expressly authorized to do so by Congress. (*See, e.g.,* Lynch v. United States, 292 U.S. 571, 579 (1934); Bowen v. Public Agencies Opposed to Social Security Entrapment, 477 U.S. 41, 52 (1986); *cf.* Home Tel. & Tel Co. v. City of Los Angeles, 211 U.S. 265, 273 (1908).) Examples include, without limitation:

1. All of the provisions, including those cited in this letter, that provide maximum sideboards on aquatic protection measures that are to be developed after watershed analysis or in any way limit the exercise of discretion by the agencies..

2. The portions of the Implementation Agreement that are identified below as constituting an unlawful delegation of agency authority.

X. THE AQUATIC CONSERVATION COMPONENT OF THE HCP/SYP AND EIS/EIR CONTAINS A FLAWED IMPACT ANALYSIS.

A. LEGAL FRAMEWORK.

An EIS must analyze "cumulative actions, which when viewed together have cumulatively significant impacts." (40 C.F.R. 1508.25(a)(2).) Thus, "[w]here several foreseeable similar projects in a geographical region have a cumulative impact, they should be evaluated in a single EIS." (*Resources Ltd*, 35 F.3d at 1306; see also 40 C.F.R. 1508.25(a)(3).) "Cumulative impact" is defined in the NEPA regulations as the impact on the environment that results from "the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions." (40 C.F.R. 1508.7.) Thus, a federal agency cannot ignore significant impacts by considering the environmental effects of individual projects in isolation from past and reasonably foreseeable future projects. (*Inland Empire*, 992 F.2d at 981.) In addition, an EIS must examine "reasonable options" for avoiding or mitigating any significant cumulative effects identified. (40 C.F.R. 1508.25.)

Similarly, an EIR must analyze the cumulative impacts of the project under consideration when added to other closely related past, present and reasonably foreseeable future projects. (14 Cal. Code Regs. 15130.) "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (14 Cal. Code Regs. 15355.) Cumulative impacts may result from "individually minor but collectively significant actions taking place over a period of time." (Id.)

The fact that a project or an aspect of a project may, in and of itself, have a relatively minor impact does not mean that the project will not have significant cumulative impacts. (See *Kings County Farm Bureau v. City of Hanford*, 221 Cal. App. 3d 692, 722 (1991).) Such a conclusion was expressly repudiated by the court in *EPIC v. Johnson*, 170 Cal. App. 3d 604, 624-625 (1985):

> To address the cumulative effect issue the Department has taken the tact [sic] that if the adverse effects are minimized to the maximum [extent feasible] on each individual operation, then the total effect on the surrounding area will also be minimized to an acceptable level. This statement is at odds with the concept of cumulative effect, which assesses cumulative damages as a whole, greater than the sum of its parts.

An adequate cumulative impact analysis under CEQA must include several basic components. First, it must summarize all past, present and reasonably foreseeable future projects (including projects outside of the agency's control). (14 Cal. Code Regs. 15130(b).) The projects discussed must include not only approved projects but projects currently undergoing environmental review.

Second, the EIR must contain a "reasonable analysis" of the anticipated environmental effects of the these projects. (Id.) Although the discussion need not be as detailed as the discussion of direct impacts of the project, it must be more than a mere conclusion "devoid of any reasoned analysis." (*Whitman v. Board of Supervisors*, 88 Cal. App. 3d 397, 411 (1979).)

Third, the cumulative impact analysis must include "specific reference[s] to additional information" and state where that information is available. (14 Cal. Code Regs. 15130(b)(2); see also *Kings County Farm Bureau v. City of Hanford*, 221 Cal. App. 3d 692, 729 (1990) (holding that cumulative impact analysis must be supported by at least some hard data).) Finally, an EIR must examine "reasonable options" for avoiding or mitigating to insignificance any significant cumulative effects identified in the document. (14 Cal. Code Regs. 15130.)

NEPA regulations require an EIS to "provide a full and fair discussion of significant environmental impacts." (40 C.F.R. 1502.1.) In addition to cumulative impacts, NEPA regulations require an EIS to include a discussion of direct and indirect impacts of the project and mitigation measures for any significant effects identified. (40 C.F.R. 1502.16(a), (b), (h); 1502.14(f).) "Direct effects" are those which are immediately caused by the action. "Indirect effects" are those which will be caused by the action at a later time, but which are nevertheless reasonably foreseeable. (40 C.F.R. 1508.8.) They include growth inducing effects and other effects related changes in land use patterns, population density or growth rate. (40 C.F.R. 1508.8(b).) The discussion of impacts must also include an analysis of possible conflict between the proposed action and federal, state, regional and local land use plans and policies. (40 C.F.R. 1502.16(c).) Finally, NEPA requires an EIS to include measures to avoid or minimize each significant impact identified, including the impacts of alternatives. (40 C.F.R. 1502.16(h), 1502.14(f).)

Again, the discussion of environmental impacts must satisfy a "rule of reason" which requires a "reasonably thorough" discussion of impacts and mitigation measures. (*Laguna Greenbelt*, 42 F.3d at 526; *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).) The discussion need not be "exhaustive," and the EIS need not analyze "remote possibilities." (*Trout Unlimited, Salmon River*) The HCP Handbook emphasizes that, unlike the impact analysis in the HCP itself, the impact analysis in an EIS must

evaluate all significant effects on the environment, such as air quality, water quality, cultural resources, and land use patterns, not just impacts to species. (HCP Handbook p. 1-6.)

CEQA requires an EIR to clearly identify and describe the direct and indirect environmental effects of the project, considering both short term and long term effects. The discussion must include:

> the relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution [and] concentration, human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resources base such as water, scenic quality, and public services.

(14 Cal. Code Regs. 15126(a).)

CEQA also requires an EIR to include measures to avoid or minimize each significant impact identified, including the impacts of alternatives. (14 Cal. Code Regs. 15126(c).)

B. FLAWED IMPACT ANALYSES.

The analyses of the significance of both incremental and cumulative impacts in both the HCP/SYP and EIS/EIR do not comply with CEQA and NEPA for several fundamental reasons, including:

(1) The impact analysis uses an arbitrary and inappropriate time frame (*i.e.* finding admitted adverse "short term" impacts in the next 10-30 years to be insignificant because "long term" impacts after 50 years will be insignificant) in violation of 40 CFR § 1502.27(a) and (b)(7).

(2) The impact analysis uses an arbitrary and inappropriate baseline to represent the current environmental setting (i.e. baselines used are extensions of current logging practices into the future, rather than existing on-the-ground conditions in the environment).

(3) The cumulative impacts analysis fails to add the incremental impact of this ITP/HCP/SYP to existing significant impacts from past projects. Indeed, by failing to accurately describe the environmental setting, PL has fatally undermined any hope of a reliable impact analysis.

(4) The cumulative impacts analysis fails to include a consideration of all closely related present and reasonably forseeable future projects.

(5) The cumulative impacts analysis assumes that minimizing impacts from this ITP/HCP/SYP will avoid significant adverse impacts.

(6) The impact analysis fails to analyze the significance of adverse impacts of the actual project - i.e. logging under the SYP.

(7) The impact analysis fails to analyze the significance of adverse impacts of the project in both a regional and local context as required by 40 CFR § 1508.27(a).

(1) Arbitrary and Inappropriate Time Frame.

TNL-24

The entire fisheries analysis in the EIS/EIR (Vol. I, Chapter 3.8, pp. 3.8-31 through 3.8-56) is based on the premise that the Headwaters project would be environmentally beneficial in the long term with respect to fisheries and aquatic habitat (sediment input, LWD, herbicide input, fluvial geomorphology, etc.). (This contention is refuted in the following section.) The EIS/EIR concedes that these resources would be adversely affected in the short term (defined on pp. 3.8-32 and 3.8- 34 as less than 10 years, but, with respect to road remediation, 'short-term effects would extend out to 30 years (p. 3.8-43) (see EIS/R pp. 3.8-31, 32, 42, 43, 44, 47), but contends they will be beneficially affected in the long-term (50+ years) (with the exception of LWD, which may still be adversely affected in the long-term as well as the short-term) (see, for example, EIS, pp. 3.8-32, 3.8-34, and Table 3.8-8, p. 3.8-48). The "beneficial" impacts considered to result from the project are stated in terms of improved long-term trends on aquatic habitat (pp. 3.8-50 through 3.8-54). The analysis fails to address actual potential losses of fish in the interim, or assess the state of the fisheries in the short or long-term. As Dr. Frissell points out improved habitat conditions in 50 years, even if it happens, will not benefit coho if there are none left to colonize the habitat.

The EIS does not analyze the significance of continuing or exacerbating existing significant adverse effect for the next 30 years. There is no information presented on current populations of anadromous fish population such as coho salmon, whether populations are increasing or decreasing, or any projected trends in their populations. (See e.g. Frissell comments). All we know is that the Southern Oregon/Northern California ESU of coho probably numbered less than 10,000 individuals in October 1997 when NMFS listed the ESU as threatened. (Fed. Reg. Vol. 62, No. 87, May 6, 1997, Final Rule listing Southern Oregon /Northern California coho ESU as a threatened species. p. 24588.)

The HCP and EIS ignore the absolutely fundamental question of whether there will be any coho salmon left in the streams on PL's land to benefit from any long term beneficial effects of this project on coho habitat 50 years from now. Indeed, the short term decline in habitat is much more certain to occur just by virtue of its relative proximity in time to the present than are any speculative long term benefits. Uncertainty of recovery is an important factor in the probability of extinction. (Botsford and Brittenger 1998 attached in Frissel reference materials). TNL-24 con.

(2) Arbitrary and Inappropriate Baseline.

The starting point for evaluating the significance of impacts, both incremental and cumulative impacts, under CEQA and NEPA is the existing conditions in the environmental setting. ((CEQA Guidelines § 15125; *San Joaquin Raptor v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 722-723) and NEPA (40 CFR §§1502.15, 1502.16). Nowhere does the EIR use as a baseline for evaluating the significance of impacts the existing conditions in the environmental setting projected into the future. Instead, the EIS/EIR compares the impacts of the proposed project to the impacts of other alternatives selected for analysis, rather than assessing the impact of each of the alternatives on the environment, in clear violation of these statutes. The consequence of this analytic error is that the EIS/EIR turns the impact analysis on its head, absurdly finding that PL's massive logging program will be beneficial to aquatic and coho habitat. TNL-25

The EIS/EIR's cumulative impacts analysis for riparian areas in Chapter 3.7 explicitly uses the wrong baseline of current management practices instead of environmental conditions. The EIS/EIR compares the project to current management practices instead of on the ground conditions, stating "stream buffers on Palco lands....are expected to minimize direct and indirect impacts compared to current management" (EIS/EIR p. 3.7-87) and "[g]iven that Palco lands under all alternatives would more successfully minimize direct and indirect effects on Palco managed lands, these alternatives would contribute substantially toward reducing landscape-wide cumulative effects in the mid-to long-term" "(pp. 3.7-89 and 90).

Similarly, Chapter 3.8's discussion of cumulative impacts of this project at the scale of the Southern Oregon/Northern California coho ESU represents a remarkable combination of analytic errors identified here as (2), (3) and (4). The EIS/EIR assumes that the effect of the project will be beneficial to coho, that the effects of the many other ITP/HCPs on private land and other projects on public lands that it briefly identifies in the area will also be beneficial, and therefore, the PL ITP/HCP/SYP will "contribute to the other efforts to maintain and restore coho salmon on public and private lands in the ESU"!!! (EIS/EIR p. 3.8-52.)

TNL-25 CON.

Again, the EIS/EIR reaches this Alice in Wonderland conclusion by using the wrong baseline for its impact assessment. While the fisheries impact analysis in Chapter 3.8 fails to disclose the baseline used, thus making the public divine it from other clues, we know from Chapter 3.7 that the baseline is PL's management under the Forest Practice Rules. This same analytic error is made regarding the other geographic scales considered at pp. 3.8-50 through 3.8-54.

Of course, neither the HCP/SYP nor the EIS/EIR ever make the preposterous claim that PL's proposed SYP logging blitzkrieg will benefit riparian or other aquatic habitat features compared to no logging. Indeed, the EIS/EIR concedes on occasion, as it must, that logging harms the aquatic environment. For example, the EIS/EIR states: "While some hillslope erosion is unavoidable due to the nature of logging operations, the delivery to streams can be mitigated to a less than significant level." (EIS/EIR, p. 3.6-43). Consequently, it is only by comparing PL's SYP logging as constrained by the HCP to PL's logging as constrained by the Forest Practice Rules that the EIS/EIR is able to conclude that this project will benefit aquatic habitat values. Thus, the EIS/EIR has chosen for its impact analysis baseline the state version of the no project alternative. The impact analysis must use as its baseline the actual conditions in the environment, which the EIS/EIR fails to do.

Moreover. the state version of the no project alternative is entirely unrealistic because, as NMFS has recognized, it assumes that NMFS will do nothing to enforce the ESA § 9 no take requirements in the absence on an ITP. Thus, even if it were proper to use one of the no project alternatives presented as the baseline for the impact analysis, the appropriate version of the no project alternative to use would be the federal version, which involves more alleged protection to aquatic habitat than the proposed project.

In sum, using either existing environmental conditions or the federal "no take" version of the no project alternative as the impact analysis baseline would result in the EIS/EIR finding the proposed project having adverse impacts rather than beneficial impacts. Since the EIS/EIR fails to do this, it fails to evaluate the significance of the adverse impacts, either direct, indirect, incremental or cumulative, of the project at all.

The EIS/EIR consistently repeats this fundamental analytic error in the other sections that relate to aquatic and coho habitat.

In Chapter 3.4, the incremental impact assessment on watersheds, hydrology and floodplains analyzes a number of individual variables, such as peak flow, summer low flows, temperature, etc. The baseline used for assessing the incremental impact of each variable is Alternative 1, the no project alternative, rather than existing environmental

conditions. For example, the EIS/EIR states, with respect to the effect of the proposed project (Alternative 2) on peak flow, that "[t]his alternative would have similar effects on peak flows as Alternative 1.) (EIS/EIR p. 3.4-38) Similar language appears for low summer flows. (EIS/EIR p. 3.4-41).

TNL-25 con.

For water temperature, the EIS/EIR states: "[a]lternative 2 provides different interim and default RMZ prescriptions than Alternative 1, but should maintain or improve stream temperatures compared to existing conditions." (p. 3.4-42). The reference to "existing conditions" must refer to continued management under the Forest Practice Rules, i.e. the state version of the no action alternative, because there is no way that logging under the HCP/SYP can improve stream temperatures compared to no logging.[1]

Conversely, the assessment of the proposed projects impacts on sediment related water quality objectives gives no clue as to what baseline was used. (EIS/EIR pp. 3.4-46 to 3.4-47). This is another example of the constantly shifting language used reference the baseline used for the aquatic habitat impact analysis, which occurs throughout Chapters 3.4, 3.6, 3.7, and 3.8. The end result is to confuse the reader and render it impossible to evaluate the appropriateness of the EIS/EIR's conclusions.

Chapter 3.4's assessment of cumulative impacts on watersheds, hydrology and floodplains spends several pages (pp. 3.4-59 through 61) generally describing proposed RWQCB watershed and water quality regulations. It then provides a river-by-river overview and concludes that the HCP would result in a "positive cumulative effect" on each of the rivers draining the PL property (pp. 3.4-61 through 64). It further notes that, until TMDL implementation the recovery of the aquatic and hydrologic systems of most of these rivers may be adversely impacted (pp. 3.4-62 and 64). The analyses focus on the cumulative beneficial impacts of TMDLs, Watershed Management Plans, and HCPs, and not on the cumulative adverse effects of continued logging throughout the watersheds. Again, the baseline used to reach this conclusion is an extension of current logging practices into the future, as opposed to existing on-the-ground conditions (See, for example p. 3.4-61, which states "These watersheds and management of their lands would have a positive cumulative effect, though persistence of historical management-related sediment would continue to adversely affect beneficial uses....).

---

[1]Indeed as biologist Patrick Higgins points out in his comment letter, streambed aggradation, loss of channel cross sectional area, stream widening and loss of pool depth, all caused by sediment inputs, much of it management caused, are important sources of increased stream temperatures on PL land.

Chapter 3.6 regarding soils and geology repeats the same error, concluding that the HCP/SYP will improve the various parameters mentioned. As in Chapter 3.8, the analysis in Chapter 3.6 does not explicitly state the baseline used. Again we know from Chapter 3.7 and from the fact that structure of the analysis is a comparison of each alternative to other alternatives rather than to environmental conditions that the baseline is PL's management under the Forest Practice Rules. TNL-26 con.

Additional examples of the EIS/EIR's use of Alternative 1 as the project impact analysis baseline are: channel morphology (p. 3.4-54), timber harvest related mass wasting (p. 3.6-34), soil productivity (p. 3.6-52), stream shade (p. 3.7-58), LWD recruitment (p. 3.7-63 to 3.7-68), microclimate (3.7-85).[2]

Additional examples of the EIS/EIR's failure to specify the project impact analysis baseline are: road related mass wasting (p. 3.6-39 to 3.6-42), hillslope erosion (p. 3.6-47), road surface erosion (p. 3.6-49), leaf and needle litter (3.7-73), streambank stability (3.7-76), sediment control (3.7-79).

(3) The cumulative impacts analysis fails to add the incremental impact of this ITP/HCP/SYP to existing significant impacts from past projects.

Evaluating cumulative impacts requires adding the effects of the proposed project to the effects of past projects (as well as present and future projects.) Here, as described above, the EIS/EIR utterly fails to provide any kind of accurate detailed description of the effects of past projects that are part of the existing environmental setting, despite the fact that this information is readily available (as shown by the voluminous Exhibits and Appendices submitted herewith). Since the existing (significantly adverse) conditions are not specified, it is impossible for the EIS/EIR to add the effects of the current project to them.[3] TNL-27

(4) The cumulative impacts analysis fails to include a consideration of all closely related present and reasonably forseeable future projects.

---

[2]It should be noted that these sections do not specify which version of Alternative 1, state or federal, is used, adding yet another source of confusion for the reader.

[3]The EIS/EIR improperly relies on PL's presumed future compliance with another regulatory scheme to conclude that the use of herbicides in this project will not have significant adverse incremental or cumulative impacts are: (p. 3.4-51).

There are seventeen other timberland ownerships comprising approximately 2.5 million acres in northwestern California alone that have either applied for an ITP/HCP or are in pre-application negotiations with the FWS and NMFS regarding an ITP/HCP. See Map submitted by Steve Beckwitt under separate cover. In addition, there are over 67 ITP/HCPs in Washington, Oregon and California on industrial timberlands comprising 12,132,166 acres. (See Exhibit 23). The EIS/EIR only discloses the existence of eight HCPs in Northern California comprising 1.2 million acres, then concludes that all of these other HCPs will benefit aquatic and coho habitat. (EIS/EIR p. 3.8-51, 3.8-52). No information is provided to support this conclusion. Indeed, assuming NMFS has committed the same analytic error regarding the appropriate impacts analysis baseline in those HCPs that it commits here, it is fair to say that those other HCPs, like this one, may be less harmful than whatever land use practices are ongoing in those locations, but it is absurd to contend that industrial timber management, no matter how well controlled, benefits aquatic and coho habitat. TNL-28

(5) The cumulative impacts analysis assumes that minimizing impacts from this ITP/HCP/SYP will avoid significant adverse impacts.

The EIR characterizes the mitigation measures for many of the variables that effect aquatic habitat values as "minimizing" impacts from logging under Alternative 2/proposed project: Examples of the EIS/EIR's reliance on minimizing incremental impacts to conclude that the project will not have significant incremental or cumulative impacts are, without limitation: nutrients (p. 3.4-49), timber harvest related mass wasting in Jordan Creek (p. 3.6-36), road related mass wasting (p. 3.6-42), hillslope erosion (p. 3.6-47), road surface erosion (p. 3.6-49), leaf and needle litter (3.7-73). The minimization of individual incremental impacts is not a sufficient basis on which to find no significant cumulative impacts. TNL-29

C. INADEQUATE ANALYSIS OF ALTERNATIVES.

NEPA regulations require the EIS to "rigorously explore and objectively evaluate all reasonable alternatives," and to explain why alternatives not analyzed were eliminated from detailed consideration. (40 C.F.R. 1502.14(a).) Consideration of alternatives is the "heart" of an EIS. (40 C.F.R. 1502.14.) The EIS must therefore "devote substantial treatment to each alternative considered in detail so that reviewers may evaluate their comparative merits." (40 C.F.R. 1502.14(b).) It also must explain how each alternative will or will not achieve the policies of NEPA and other relevant environmental laws and policies. (40C.F.R. 1502.2(d).) The analysis must include the alternative of no action, as well as alternatives not within the federal lead agency's jurisdiction. (40 C.F.R. 1502.14(c), (d).) Finally, the analysis must identify the agency's preferred alternative and include TNL-30

appropriate mitigation measures for each alternative analyzed in detail. (40 C.F.R. 1502.14(e), (f).)

TNL-30 con.

The adequacy of an EIS' discussion of alternatives is determined by a "rule of reason." There is no minimum number of alternatives that must be discussed. (Laguna Greenbelt v. U.S. Dep't of Transp., 42 F.3d 517, 524 (9th Cir. 1994).) However, the existence of a viable but unexamined alternative renders the EIS inadequate. (Mumma, 956 F.2d at 1519.) An EIS will generally be held adequate if it evaluates a "reasonable range" of alternatives. The range is dictated by the "nature and scope of the proposed action," and must be sufficient to permit the agency to make a "reasoned choice." (*Alaska Wilderness Recreation and Tourism v. Morrison*, 67 F.3d 723, 729 (9th Cir. 1995).)

CEQA likewise requires EIRs to evaluate the "comparative merits" of a range of reasonable alternatives to the proposed project and/or to the location of the project. (14 Cal. Code Regs. 15126(d).) The alternatives selected for analysis must focus only on those that would avoid or substantially reduce the project's significant environmental effects, even if these alternatives would impede to some degree the attainment of project objectives or would be more costly. (14 Cal. Code Regs. 15126(d)(1) and (5).) The range of alternatives selected must "foster meaningful public participation and informed decisionmaking." (14 Cal. Code Regs. 15126(d)(5).) One of the alternatives analyzed must include the "no project" alternative. (14 Cal. Code Regs. 15126(d)(4).)

The EIR must describe the rationale for selecting the alternatives to be discussed, and identify any alternatives that were rejected as infeasible during the scoping process and why. (14 Cal. Code Regs. 15126(d)(2).) The EIR's alternatives analysis must include "sufficient information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project." (14 Cal. Code Regs. 15126(d)(3) (emphasis added).) If an alternative would cause one or more significant effects in addition to the proposed project, the EIR must evaluate these impacts but in less detail than those of the proposed project. Finally, the analysis must select an "environmentally superior" alternative. (14 Cal. Code Regs. 15126(d)(4).)

Both CEQA (14 CCR § 15126(d)) and NEPA (at 40 CFR § 1502.14(d)) require that the EIS/EIR analyze a "no project alternative." The CEQA Guidelines require that the "no project" alternative "shall discuss the existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." The primary purpose of the requirement of considering alternatives is to present the relative environmental benefits and costs of the analyzed alternatives in comparison

to the proposed project. *Kings County Farm Bureau v. City of Hanford*, supra, 221 Cal. App. 3d 692, 730-737.

TNL-30 con.

The EIS/EIR alternatives discussion fail to do this. Here, the EIS/EIR contains a CDF or "state" version of the no project alternative that assumes that PL will continue to log pursuant to THPs under the Forest Practice Rules. The NMFS or "federal" version of the no project alternative consists of adding "additional measures" to the FPRs to avoid "take" of coho salmon. (EIS p. 2-24, 2-25). Thus neither the state nor federal version includes a no project alternative that analyzes "existing conditions", because neither no project alternative consists of "no logging." Consequently, the EIS/EIR fails to provide a comparison of the relative environmental benefits of no logging to the proposed project.

Further, the state version of the no project alternative is only a short term projection: But the difficulty in specifying future conditions with precision does not excuse the failure to analyze a no project alternative that has a time duration at least as long as the proposed project (i.e. fifty years). The discussion of project alternatives must "contain facts and analysis; not just the agency's bare conclusions or opinions" and must contain "meaningful detail" sufficient to provide the decision maker with enough information to make an informed decision and to enable the public "to understand, evaluate and respond to the agency's conclusions.". *Laurel Heights I*, supra, 47 Cal. 3d at 404, 406, 399-407. Here the analysis falls well below the standards articulated in the governing case law.

Similar to the defective EIR discussed in *Laurel Heights*, *supra*, the instant EIR contains "no analysis of any alternative locations" for harvesting that would not have such severe impacts on aquatic species, including coho salmon (*Id.* at 404; *see also Citizens of Goleta Valley v. Board of Supervisors II* (1989) 216 Cal. App..3d 48 (EIR must sufficiently inform the public why ostensibly feasible alternative sites were rejected).)

Further, it is the project proponent's responsibility to provide an adequate discussion of alternatives, and "[t]hat responsibility is not dependent in the first instance on a showing by the public that there are feasible alternatives. If the project proponent concludes that there are no feasible alternatives, it must explain in meaningful detail in the EIR the basis for that conclusion (*Laurel Heights* at 405.)

D. FAILURE TO MINIMIZE AND MITIGATE TAKE TO THE MAXIMUM EXTENT PRACTICABLE AND TO IMPLEMENT ALL FEASIBLE MITIGATION MEASURES.

1. Prohibiting winter operations. (See Exhibit 10)

TNL-31

2. In watersheds like Bear Creek (i.e. ones where PL's logging has caused damage to aquatic habitat), excluding logging from "the full area of inner gorges, stream side slopes, headwalls and swales" as described in the report by Dr. Leslie Reid entitled "Calculation of Cutting Rate for Bear Creek Watershed" which is included in Exhibit 12. TNL-32

3. Failure to use the aquatic conservation measures recommended in the "Mantech" report (submitted herewith for inclusion in the record.) TNL-33

4. Failure to use the aquatic conservation measures recommended in the "1993 FEMAT" report (submitted herewith for inclusion in the record.) TNL-34

5. Failure to use the aquatic conservation measures adopted in the "Option 9" Record of Decision and Final Supplemental Environmental Impact Statement (submitted herewith for inclusion in the record.) TNL-35

E. FAILURE TO USE BEST AVAILABLE SCIENCE AND TO CONSIDER ALTERNATIVES.

1. The HCP/SYP and EIS/EIR fail to use best available science in violation of section 7 of the ESA, 50 CFR § 222.22(b)(5) and 40 CFR § 1502.24. Also there are alternative approaches to the HCP/SYP's aquatic conservation strategy that PL did not consider, in violation of ESA § 10(2)(A)(i), as follows. TNL-36

2. Leading scientists in the fields of fluvial geomorphology (Dr. Pess and Dr. Montgomery), hydrogeology (Dr. Curry), salmonid biology (Dr. Moyle. Dr. Frissel and Mr. Higgins), population biology (Dr. Botsford) and forestry (Dr. Hrubes) have unanimously and roundly rejected the HCP/SYP and EIS/EIR for their failure to use best available science, or in some cases, any science at all.

How did this happen? Different ways for different aspects of the process. The gross failure to accurately describe the environmental setting seems to be a result of PL ignoring all of the agency comments on its draft HCP/SYP (which, with respect to NMFS' comments, violates ESA § 10(2)(A)(iv)). (see e.g. Exhibits 4A -4H).

3. For certain other aspects of the aquatic conservation strategy, the negotiations between PL and NMFS recount a sad tale of capitulation and abandonment of the best available science. For example, NMFS' March 20, 1997 "Aquatic Properly Functioning Condition Matrix," with respect to "hillslope sediment delivery mechanisms" establishes standards for mitigating "surface erosion and mass wasting from management activities" of "zero net discharge of sediment in non-303(d) listed waterbodies" and "net decrease in TNL-37

sediment delivery from management activities in 303(d) listed waterbodies. (Numeric goal lo be determined)." (Vol. IV, Part D, Section 6, 8th page). TNL-37 con.

These standards are abandoned in the HCP/SYP, despite the fact that PL and CDF have many years of experience with applying the zero net discharge standard to THPs. Indeed, in 1990 CDF began applying the zero net discharge standard to all THPs (from all ownerships) in the Mattole River because of severe degradation of that river system by management caused sediment. (See Exhibit 5.) This demonstrably feasible mitigation measure was simply dropped from this HCP/SYP.

Similarly, the standard for "pool frequency" for "streams with gradient >3% and average width <10m" went from "1 pool every 3 bankfull channel widths" in the March 20, 1997 matrix (Vol. IV, Part D, Section 6, 11th page) to "1 pool every 6 bankfull channel widths" in the HCP (Vol. IV, Part D, Section 1, p. 98). In addition, the standard of "surface area, 50% of the stream surface area composed of pool habitats" (Vol. IV, Part D, Section 6, 12th page), was abandoned (see (Vol. IV, Part D, Section 1, p. 98).

3. The failure to utilize the "Mantech", "FEMAT" and "Option 9 ROD" standards and criteria for aquatic conservation. NMFS' stated reason for rejecting Mantech and FEMAT aquatic protection measures, particularly the width of the no-cut riparian buffers is that on private land NMFS takes a "higher risk" regarding salmon protection than it does on federal land. (Exhibit 11, p. 46.). Yet nowhere does the HCP/SYP or EIS/EIR quantify or otherwise characterize the difference in "risk" that NMFS thinks it is entitled to apply to private lands vs. public lands. Also, the Mantech standards were developed to apply to private land (see Letter from Will Stelle accompanying the Mantech Report. Moreover, the ESA makes no distinction in levels of risk that listed species are to be subjected to under the incidental take authority provided under § 7 or § 10. Similarly, item (iv) of subparagraph (B) of paragraph (2) of subdivision (a) of § 10 of the ESA does not provide for differing levels of risk of appreciably reducing the likelihood of the survival and recovery of the species in the wild. There is no suggestion in the statute or any of NMFS' regulations that the degree of reduction in the likelihood of survival and recovery of coho that would be considered "appreciable" is any different on private land governed by § 10 vs. public and private lands governed by § 7. TNL-38

4. Failure to conduct the analyses conducted by Dr. Leslie Reid discussed in section X.D. above. For example, Dr. Reid's work found that 82% of the sediment delivered to Bear Creek is from debris landslides and only 8% is road related, contrary to the assertion in the HCP/SYP and EIS/EIR that most sediment is road related. Dr. Reid also provides a method of quantitatively evaluating and mitigating mass wasting risk that should be implemented before issuance of the federal and state permits and approval of the SYP TNL-39

5. Failure to protect coho refugia. One of the tenets of the FEMAT watercourse strategy is protection for refugia fish populations. This is another divergence between what the HCP proposes and the best available science. (See Exhibit 12: DFG memo dated November 3, 1997, p.2: "In spite of the serious level of past and ongoing degradation to habitat from timber operations, the North Fork Elk River is considered by the Department as the best coho producing tributary to Humboldt Bay." TNL-40

F. FAILURE TO ENSURE NO JEOPARDY TO COHO AND NO ADVERSE MODIFICATION OF CRITICAL HABITAT FOR COHO.. TNL-41

(a) The HCP/SYP and EIS/EIR fail to provide an estimate of the likelihood that coho will survive and recover in the wild. Without this information it is impossible for the general public to evaluate the EIS/EIR's claim that the project will not jeopardize coho. Fortunately, Dr. Moyle and Dr. Frissel are not the general public. Their comments, read in conjunction with those of Dr. Curry, Dr. Montgomery, Dr. Pess, Dr. Botsford, Mr. Barnes and Mr. Patrick Higgins, demonstrate that this project will appreciably reduce the likelihood of the survival and recovery in the wild of coho in this ESU.

Indeed, the Option 9 FSEIS estimated that under Alternative 9 (which the USFS and BLM adopted), the likelihood of having a well distributed coho population on the lands covered by the Northwest Forest Plan was only 65%. ("Option 9 FSEIS, Vol. I, p. 3&4-197. The aquatic conservation strategy in Option is much more protective of coho habitat than the PL HCP/SYP. The Option 9 FSEIS estimated that under Alternative 8 (which the USFS and BLM did not adopt), the likelihood of having a well distributed coho population on the lands covered by the Northwest Forest Plan went down to 20%, with a risk of extripation of 10%. The aquatic conservation strategy in Alternative 8 is also much more protective of coho habitat than the PL HCP/SYP, though not as protective as Option 9.

The HCP/SYP and EIS/EIR leave the reader wondering just how low are the likelihoods of well distributed coho populations on PL land and in the ESU and how high the risk of extirpation is as a result of the weak aquatic protection standards in the HCP. Remarkably, the HCP/SYP and the EIS/EIR are silent on these issues.

(b) "NMFS believes that virtually all "adverse modification" determinations pertaining to critical habitat would also result in 'jeopardy' conclusions" (Fed. Reg. November 25, 1997, Vol. 62, No. 227, Final Rule designating critical habitat for Southern Oregon /Northern California coho ESU, p. 62741, 62746). Here, the EIS/EIR concedes that PL's activities under the ITP/HCP will adversely modify critical habitat, at least in the short term. Moreover, the reality is that this project will continue to degrade the critical habitat designated for coho on PL land, albeit at a slower rate than under the California

FPRs. This constitutes adverse modification in violation of ESA § 7(a)(2). TNL-41 con.

XI. COMMENTS ON THE DRAFT IMPLEMENTATION AGREEMENT.

p. 2, ¶ E. Whether CDF has "jurisdiction over the timberlands of the State of California" is not relevant to CDF's role as the lead agency, under FPR 1091.1 *et. seq.*, for PL's HCP/SYP, which covers private timberland, not state timberland. Under the Forest Practice Act, CDF has jurisdiction over THPs, HCP/SYPs, other specified logging plans and timberland conversions. The Timberland Productivity Act of 1982 does not confer any "jurisdiction" on CDF. TNL-42

p. 5, § 1. "Additional Lands" definition refers to list on "Exhibit A." Exhibit A is not included. Therefore, we cannot review the document for impacts on these additional lands. As a result, the draft EIS/EIR is "so fundamentally and basically inadequate and conclusory in nature that public comment on the draft was in effect meaningless. *Laurel Heights v. Regents,* (1993) 6 Cal. 4th 1112, 1130 ("*Laurel Heights II*") TNL-43

p. 9, § 1. "State listed species" definition fails to list which species are included. Therefore, we cannot review the document for impacts on these species. As a result, the document is unreviewable. (*Laurel Heights II, supra).* TNL-44

p. 10, § 2.1.1. "For each Covered Species which is not a Federal Listed Species, USFWS finds that the HCP has satisfied the permit issuance criteria under section 10(a)(2)(B) of the FESA that would otherwise apply if such Covered Species were a Federal Listed Species." TNL-45

This finding is arbitrary and capricious and it cannot, as a matter of law, be based on the best scientific and commercial data available on as required by ESA § 7(a)(2).[4] Under ESA § 10, PL cannot obtain an incidental take permit immunizing it from § 9 liability unless it obtains approval of such a permit and accompanying HCP pursuant to §

---

[4] The standard of judicial review of the ITPs is whether actions of the FWS or NMFS are 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law,' as set forth in 5 U.S.C. § 706(2)(A). Camp v. Pitts, 411 U.S. 138, 142, 93 S. Ct. 1241, 1244, 36L. Ed. 2d 106 (1973). In reviewing the agency's action, the Court considers whether the agency acted within the scope of its legal authority, whether it has explained its decision, whether the facts on which it purports to rely have some basis in the record, and whether the agency considered the relevant factors. Citizens to Preserve Overton v. Volpe, 401 U.S. 402, 415-16,91 S. Ct. 814, 823-24, 28 L. Ed. 2d 136 (1971).

10(a)(1)(B) and 10(a)(2)(B). In deciding whether to issue such a permit, FWS and NMFS must comply with § 7(a)(2), which requires that these agencies use the best scientific and commercial data available. TNL-45 con.

The procedure that PL and the agencies intend to follow involves the FWS and NMFS making § 10 and § 7 permit issuance determinations about currently unlisted species based on data available as of late 1998 or early 1999. But the effective issuance date of the § 10 permit for these species will be far in the future, at which time the 1998/1999 information will not be the best available.

The agencies can pretend that making the § 10 permit "effective" on the date any such species is actually listed under the Act is different than "issuing" the permit on that date. But this sophist reasoning elevates form over substance. The fact remains that the FWS and NMFS are contractually obligating themselves to "permit" a "taking otherwise prohibited" based on outdated information, in violation of the ESA. Therefore, this portion of the proposed contract violates public policy and is void.

p. 15, § 2.4. Why are CDF's obligations not spelled out in the same level of detail as those of the FWS, NMFS and CDFG? TNL-46

p. 17, § 3.1.1: "Except as provided in subsection (b) of this section 3.1.1, no activities other than the MMCA Conservation Activities listed in this section, as conditioned and restricted in Volume I, Part A and Volume IV, Part B of the HCP, shall be allowed within any MMCA unless the Wildlife Agencies determine, following compliance with all applicable laws and regulations including NEPA and CEQA, that such activities are compatible with protection of, or are beneficial to, the marbled murrelet and its habitat and the other Covered Species and their Habitats consistent with the HCP." (Emphasis added.) There is no justification presented anywhere in the HCP/SYP to justify this loophole in the prohibition of logging in the MMCA's. TNL-47

p. 18, §3.1.1(b): "The Wildlife Agencies recognize, however, that the MMCA Conservation Activities identified in subsection (a) are allowed pursuant to this Agreement and the HCP, and therefore will not require any further compliance under NEPA or CEQA on the part of the Wildlife Agencies." The reference to "MMCA Conservation Activities identified in subsection (a)" in this section should expressly exclude any activities that might arguably come within this phrase by virtue of the language in subsection (a) that " the Wildlife Agencies determine, following compliance with all applicable laws and regulations including NEPA and CEQA, that such activities are compatible with protection of, or are beneficial to, the marbled murrelet and its habitat." Otherwise, there could be confusion as to whether NEPA and CEQA compliance is required and such activities might be TNL-48

authorized without any opportunity for public review and comment. Further, to the extent this language in subsection (b) purports to exempt any agency action from compliance with NEPA or CEQA that is otherwise required, it is void as against public policy. TNL-48 con.

p. 18, §3.1.1: Subsection(c) is entirely precatory. TNL-49

p. 18, §3.1.2: This section suggests that there is information that PL either has or intends to acquire that will enable PL to choose whether to log Owl Creek grove or Grizzly Creek grove. The public cannot review this HCP/SYP for compliance with the governing statutes without this information. TNL-50

p. 19, §3.1.3.1: As discussed in section VII above, the watershed analysis process violates CEQA (*Sundstrom v. County of Mendocino* (1988) 202 Cal. App.3d 296) and § 7 of the ESA (*Conner v. Burford,* 848 F. 2d 1441, 1454-57 (9th Cir.1988), cert. denied 489 U.S. 1012 and renders compliance with § 10 of the ESA impossible.. TNL-51

Subsection (a) indicates that PL can "elect" the watersheds to which the watershed analysis process will apply. Presumably, those not elected will be governed by the "default" prescriptions described in the HCP/SYP at Vol. IV, Part D, Section 1, p. 47. By failing to identify which watersheds will be subject to watershed analysis and which will be subject to the default prescriptions, the document is unreviewable. *(Laurel Heights II,* supra).

Subsection (b): The effect of this subsection is to render the default prescriptions the *de facto* maximum level of protection afforded to aquatic ecosystems, because PL always has the option to implement the default prescriptions rather than the prescriptions that the agencies recommend based on the watershed analysis process. Thus, the watershed analysis process is not an adaptive management strategy, because the "adaptation" to new information can only go in one direction, namely towards PL's interest in minimizing interference with its economic objectives (subject to some limits under AB 1986.)

This accomplishes a *de facto* and unlawful delegation of the agencies authority to PL. For example, the FWS and NMFS are contractually foreclosed from using the information developed through the watershed analysis process to conserve listed species under section 7(a)(1) of the ESA if such conservation would require species protection measures that are more restrictive of PL's management objectives than the default prescriptions. Thus, this provision is void as against public policy.

p. 24, §3.4.3: This section constrains agency monitoring by giving PL the right to have a representative present at any interviews of any "employees, contractors, and agents of TNL-52

PALCO." This accomplishes a *de facto* and unlawful delegation of the agencies enforcement authority to PL. TNL-52 con.

p. 26, §5.2: To include any additional lands in the ITP, PL should have to demonstrate compliance with all the applicable statutory standards (e.g. section 7 and 10 the ESA) not just the criteria set forth in subsection (b) of this section. TNL-53

> Such Additional Lands will be included as Covered Lands if the Wildlife Agencies conclude that extension of the HCP provisions to the Additional Lands will not result in impacts not analyzed and mitigated under the HCP and will not result in unauthorized Take under the State and Federal Permits.

Also, the criterion, "impacts not analyzed and mitigated under the HCP" would allow the agencies to include additional lands as "covered lands" even if such inclusion will result in additional impacts that are significant or violate the standards in § 10 of the ESA or F&G Code § 2081 *et. seq.*, as long as those kinds of impacts were "analyzed and mitigated under the HCP."

The similar language at p. 29, § 5.3.2 (a): "impacts additional to or different from those analyzed and mitigated under the HCP", while better, still does not remedy the failure to expressly require compliance with the standards of § 10 of the ESA and F&G Code § 2081 *et. seq.*.[5]

p. 28, § 5.3.2. This section allows PL to transfer covered lands to others without restriction as long as certain conditions are met. None of these conditions include public review and comment under CEQA or NEPA. The public's participation in this process is premised on the ecological and biological characteristics of the actual land proposed for management under the HCP/SYP. This section allows PL to change the project description after public review and comment is completed, without any further public review and comment. This violates CEQA and NEPA. All dispositions of covered lands should be subject to the permit amendment procedures at § 7.2. TNL-54

---

[5]Implementation Agreement, p. 29, § 5.3.2(a): "Such Additional Lands will be included as Covered Lands if the Wildlife Agencies conclude, after any required environmental analysis, that extension of the HCP/SYP provisions to the Additional Lands and the proposed disposal of the tract to be swapped, will not result in impacts additional to or different from those analyzed and mitigated under the HCP and will not result in unauthorized Take under the State and Federal Permits."

p. 28, § 5.5. This section refers to Exhibit "D" which is described as "attached." It is not attached. See comments in section IV above. TNL-55

p. 31, § 6.1.1. Regarding "covering" unlisted species upon their listing, see comments regarding p.10, § 2.1.1 above. TNL-56

p. 32, § 6.1.4. This section appears to have the effect of obviating the Service's duty to evaluate whether the HCP/SYP or any amendments to the HCP/SYP will adversely modify critical habitat of any listed species under § 7(a)(2) of the ESA and F&G Code § 2081. The Service cannot contract away this duty. TNL-57

p. 33, § 6.1.6. These provisions implementing the Service's "no surprises" rules violate §§ 7 and 10 of the ESA and F&G Code § 2081 *et. seq.* for the reasons set forth in the comment letter submitted under separate cover by Tara L. Mueller. In addition, these provisions as well as the application of the no surprises rule to PL's HCP/SYP, because they limit the exercise of agency discretion, constitute an unlawful delegation of the agencies' enforcement authority to PL and of their duties and authority to conserve listed species under §§ 7 and 10 of the ESA and F&G Code § 2081 *et. seq.* TNL-58

As part of the implementation of the No Surprises rule, the HCP/SYP specifies "changed" and "unforseen circumstances" for events affecting aquatic resources, like landsliding and flooding. (Vol. IV, Part H, pp . 1, 8 to 11). In sum, If a landslide causes less than 10% of the watercourse to be impacted, or if a flood is from a less than 50 year interval storm, then nothing happens. If a landslide affect between 10% and 50% of the length of the watercourse, or if a flood is from a 50 to 100 year interval storm, then PL has to do whatever the HCP says it has to do in these circumstances. But the only specific measures required in these circumstances is an "expedited watershed analysis" with no detail as to who gets to decide what measures to implement, so ultimately the HCP does not provide any specific mitigation measures for these "changed" circumstances, so PL can do nothing in response to them. If a landslide affects over 50% of the length of the watercourse, or if a flood is from a greater than 100 year interval storm, then PL can do nothing. So ultimately these provisions mean nothing and it is misleading to suggest that they do or to base any determinations on them.

p. 33-34, § 6.1.6.3. This section purports to authorize PL to violate future adopted regulations and is therefore void as against public policy. The current no surprises rule may be superceded, amended. repealed or invalidated by court order. This contract would contractually obligate the Services to comply with the rule anyway, at PL's election. This constitutes an unlawful delegation of the Service's authority. It is also inconsistent with 50 C.F.R. § 13.28(a)(4), which provides: "(a) Criteria for revocation. A permit may be revoked TNL-59

for any of the following reasons: . . . (4) A change occurs in the statute or regulation authorizing the permit that prohibits the continuation of a permit issued by the Service." TNL-59 con.

p. 44, § 6.3. The use in this section of the phrase "to the maximum extent permitted by law" refers to a context where administrative agencies must exercise their discretion; thus it represents a limitation on the exercise of that discretion that is not authorized by Congress or the California Legislature. Therefore, it constitutes an unlawful delegation of the agencies' authority. TNL-60

p. 44, § 6.4.1. This section should expressly provide that any violation of any federal or state permit constitutes a violation by all three companies, not just Pacific Lumber Company. TNL-61

p. 49, § 8.2 and p. 56, § 9.1. The inclusion of bracketed text that may or may not be included in the IA renders the document unreviewable. *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193 ("An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR"); 40 CFR § 1502.4(a). TNL-62

p. 53, § 8.5.2. The term "fully mitigated" is inadequately defined. If permit revocation is due to material breach, then PL should not continue to enjoy immunity for § 9 liability with respect to its acts or omissions that constituted such a breach. TNL-63

p. 54, § 8.5.2. This section provides in part: TNL-64

> In determining the extent of any mitigation which may be required of PALCO pursuant to Section 8.5.1 of this Agreement, the applicable Wildlife Agency will take into account the biological value to the Covered Species provided by the Headwaters Reserve, unless the Federal or State Permit is relinquished by PALCO, or is revoked by the applicable Wildlife Agency pursuant to Section 8.2 of this Agreement as a result of a material and uncorrected breach by PALCO of its obligations under the revoked Permit, in which event the biological value of the Headwaters Reserve will not be taken into account. (emphasis added.)

The underlined text is inconsistent with § 10 of the ESA. PL will receive full market value for the Headwaters Reserve. The ITP confers immunity from § 9 liability to PL only on the remainder of PL's land (i.e. the "covered lands") in return for PL's commitments in the HCP. They are separate transactions. Therefore, full mitigation under § 8.5.1 of the HCP must be determined without regard to the biological value of the Headwaters Reserve.

p. 55, § 8.6. "Non-substantive breach" is not adequately defined. TNL-65

XII. SUSTAINED YIELD PLAN ISSUES UNDER RULES § 1091.1 ET. SEQ.

A. LONG TERM SUSTAINED YIELD.

The Forest Practice Rules provide that in an SYP "[t]he average annual projected harvest over any rolling 10-year period, . . . shall not exceed the long-term sustained yield estimate for an SYP submitters' ownership." (Rule 1091.45.) "Long-term sustained yield" ("LTSY") is defined as "the average annual growth sustainable by the inventory predicted at the end of a 100 year planning period." (Rule 895.1.) Rather than use the definition of LTSY required by the Rules, PL has defined LTSY as "the average growth of the selected silvicultural prescriptions. This is computed as mean annual increment for even-aged prescriptions and mean annual periodic increment of the last four planning periods for uneven-aged prescriptions." TNL-66

In addition to this violation of the definition LTSY, PL's harvest projections for at least six of the next ten decades are projected to be at or very close to its LTSY. Therefore, if PL's alternative definition of LTSY caused it to reach a higher timber volume figure than would be achieved by using the definition required by the Rules, the result would be that the SYP would conceal a violation of Rule 1091.45 caused by the average annual projected harvest exceeding the long-term sustained yield estimate. The SYP currently fails to provide enough data for us to make these calculations independently, therefore the document is unreviewable in any meaningful fashion. TNL-67

Further, the SYP purports to show compliance with this provision of Rule 1091.45 for the next 12 decades, but the SYP does not show compliance with this provision over any *rolling* 10-year period. TNL-68

B. IMPACTS ON LATE SERAL STAGE FOREST HABITAT.

The SYP represents that PL will maintain at least 10% of its forest in late-seral stage throughout the 100-year planning horizon of the SYP. The SYP fails to provide evidence that 10% of the forest will be in late seral stage. Also, the SYP fails to disclose what PL's criteria are for classifying forest stands as "late-seral." Further, no justification is given for the SYP's assumption that retaining 10% of the landscape in late-seral stages will be sufficient to provide habitat to the many species that depend on late-seral or mature forest habitats. See Exhibit 14. TNL-69

C. FAILURE TO REQUIRE ADAPTIVE MANAGEMENT IN THPS.

Under 14 CCR § 1091.2, THPs may rely upon the impact assessments in the SYP TNL-70

relating to watershed, fish and wildlife impacts. At Volume III, part H, the HCP/SYP describes the relationship of the SYP to future THPs. The striking feature of this description is there is no suggestion that future THPs will use (1) any of the various post approval studies that the HCP/SYP proposes for purposes of developing site specific mitigation measures, or (2) the results of the various compliance, effectiveness and trends monitoring programs to update either their impact assessments or their mitigation measures relating to these resources. Instead the HCP/SYP merely provides that: TNL-71

> The above requirements for assessment and mitigation of potential cumulative impacts are met with the information and mitigations provided in the Plan. THPs will meet the requirements for biological assessment by referencing Volume II Parts K, L, M and N and Volume IV Parts B, C, D & E in the Plan.

(at Vol. III, Part H, p. 7). Thus, according to the HCP/SYP, a THP proposed for a watercourse in which watershed analysis has been completed after the HCP/SYP is approved could still refer to the HCP/SYP as approved for its watershed and fish impact assessments and mitigation measures without reference to the results of the post approval studies or monitoring efforts. This does not comply with CEQA or the Forest Practice Rule § 1091.2, because so much of the impact assessment and development of specific mitigation measures is not contained in the "Plan" to which the THPs will refer.

D. FAILURE TO REMEDY CDF'S SUFFICIENCY REVIEW COMMENTS.

On Febuary 3, 1997, CDF issued a detailed det of "sufficiency review" comments on PL August 1997 draft HCP/SYP, which found the draft insufficient to comply with the Forest Practice Rules for many reasons. These comments are attached hereto as Exhibit 4H. The current proposed HCP/SYP fails to remedy these deficiencies. TNL-72

E. FAILURE TO INCLUDE ALL REQUIRED INFORMATION.

The SYP fails to include the information required by 14 CCR § 1091.6(c)(1)(A) and (B) and (2)(A) and (B). The landslide hazard maps (i.e. Maps 11, 12, 13) do not provide readable information at the planning watershed level as required. TNL-73

XIII. CONCLUSION.

For the reasons set forth above, the Sierra Club and EPIC request that the agencies not certify the EIS/EIR as complying with NEPA or CEQA and that PL's application for the federal and state permits be denied.

Thank you for your attention to these comments.

Very Truly Yours,

Thomas N. Lippe

G:\DATA\HDWTRS-4\COM\LIPPE

LIST OF EXHIBITS
to Comment Letter of Thomas N. Lippe

Exhibit 1: Information on Habitat Conditions and the Fisheries in Yager Creek and Elk River, Compiled by Susie Van Kirk, October 1996

Exhibit 2: Memorandum from California Department of Fish and Game to Mark Stopher, Environmental Services Supervisor, Re: Comments on "Fisheries and Watershed Analysis Assessment for Pacific Lumber Company's Multi-Species Habitat Conservation Plan Part 2 Section F-5", June 1, 1998

Exhibit 3: Summary of Contents of CD-Rom: Documents Relating to Bear Creek, Jordan Creek, Freshwater Creek, Elk River, and Yager Creek

Exhibit 4:

A. Memorandum from National Marine Fisheries Service to Pacific Lumber Co. Re: Pacific Lumber Company's Habitat Conservation Plan - Information Needs, November 21,1996

B. National Marine Fisheries Service' s comments on Pacific Lumber Company's draft SYP, February 6,1997

C. Fish and Wildlife Service's comments on Pacific Lumber Company's draft SYP, February 4,1997

D. Environmental Protection Agency's comments on Pacific Lumber Company's draft SYP, February 4,1997

E. Environmental Protection Agency's comments on the Notice of Intent (NO), February 16,1997

F. Department of Fish and Game's comments on Pacific Lumber Company's draft SYP, February 3,1997

G. California Regional Water Quality Control Board's comments to Pacific Lumber Company's draft SYP, February 3,1997

H. California Department of Forestry and Fire Protection's comments on Pacific Lumber Company's draft SYP, February 3,1997

Exhibit 5: Documents regarding the Mattole River including references to Zero Net Discharge. Memo from Humboldt/Del Norte Ranger Unit of CDF to Coast-Cascade Region Chief Glen J. Newman, dated December 31, 1996.

Exhibit 6: ~~Reserved~~ memo from T. Reid [illegible] re: PL HCP 1 3/28/97

Exhibit 7: Reserved

Exhibit 8: Memo from Jeff Barrett, Pacific Lumber biologist, to Dan Opalach regarding the Freshwater Watershed Analysis-Module Modifications/Schedule for Riparian/Fish. October 9, 1998.

Exhibit 9: Washington State Department of Natural Resources Watershed Analysis Manual

Exhibit 10: Pacific Lumber Company's Winter Operations, Sample Quotes from the Agencies

Exhibit 11: Transcript from the California Legislature's Joint Committee on Headwaters Forest and Ecosystem Management, March 16, 1998

Exhibit 12: Letter from California Regional Water Quality Control Board to Pacific Lumber Company, Re: Review of Sediment Budgets and Inventory for Bear Creek and North Fork Elk River, October 8, 1998

Letter from California Regional Water Quality Control Board to Pacific Lumber Company, Re: Cleanup and Abatement Order No. 98-100, North Fork Elk River, Humboldt County, September 22, 1998

"Sediment Source Investigation and Sediment Reduction Plan for the North Fork Elk River Watershed, Humboldt County, California", by Pacific Watershed Associates, June 1, 1998

Memorandum from Department of Fish and Game to California Department of Forestry and Fire Protection, Re: Focused Preharvest Inspection Report for Timber Harvest Plan 1-97-489 HUM, Scotia Pacific Holding Company, Bridge Creek Tributary to North Fork Elk River, April 10, 1998

Memorandum from Department of Fish and Game to North Coast Regional Water Quality Control Board, Re: Department of Fish and Game Observations on North Fork Elk River Relative to Cleanup and Abatement Order 97-115

Exhibit 13: Letter from California Department of Forestry and Fire Protection to Pacific Lumber Company, Re: Watershed Analysis, Mitigation and Monitoring, Erosion control Program, February 11, 1998

Exhibit 14: Memorandum from California Department of Fish and Game to California Department of Forestry and Fire Protection, Re: California Endangered Species Act Consultation, Timber Harvest Plan 1-96-536 HUM, May 2, 1997

Review Team Chairman's Recommendation for Timber Harvest Plan 1-96-255, California Department of Forestry and Fire Protection, September 5, 1996

Memorandum from Department of Forestry and Fire Protection to Jack White, Acting Chief Coast/Cascade Region, Re: 5400 Forest Practice Regulation, 5410 Forest Practice Act, THP No. 1-96-255 HUM: Salmon Creek, August 23, 1996

Draft Environmental Alternatives Analysis: For a 4(d) Rule for the Conservation of the Northern Spotted Owl on Non-Federal Lands, December 1995

Exhibit 15: Letter from United States Environmental Protection Agency to State Water Resources Control Board, Re: California's §303(d) waterbody list, October 19, 1993

Exhibit 16: Letter from California Regional Water Quality Control Board to Pacific Lumber Company, Re: Review of Sediment Budgets and Inventory for Bear Creek and North Fork Elk River, October 8, 1998

Memorandum from Department of Fish and Game to California Department of Forestry and Fire Protection, Re: Review Team Recommendations for and Conditional Approval of Timber Harvest Plan 1-97-487 HUM "Mid Air Bear," Scotia Pacific Holding Company, September 29, 1998

Letter from California Regional Water Quality Control Board to Interested Parties, Re: Bear Creek Review by Redwood Sciences Laboratory, June 19,1998

Letter from California Regional Water Quality Control Board to Redwood Sciences Laboratory, Re: Critical Analysis of Bear Creek Sediment Study, June 12, 1998

"Sediment Source Investigation and Sediment Reduction Plan for the Bear Creek Watershed, Humboldt County, California," by Pacific Watershed Associates, April 1998

Letter from Pacific Watershed Associates to North Coast Regional Water Quality Control Board, Re: Technical and Monitoring Program Reports for the Bear Creek Watershed, November 25, 1997

Letter from North Coast Regional Water Quality Control Board to Pacific Lumber Company, Re: Stream Channel Degradation in Bear Creek, Humboldt County, October 23, 1997

Memorandum from Department of Fish and Game to California Department of Forestry and Fire Protection, Re: Fish Habitat Conditions in Bear Creek, Tributary to Lower Eel River, October 8, 1997

Memorandum from Department of Conservation to California Department of Forestry and Fire Protection, Re: Reconnaissance Engineering Geologic Evaluation of Watershed Conditions in the Bear Creek Drainage, Pepperwood, California, August 21, 1997

Exhibit 17: Various Documents Relating to the Implementation of the Application Agreement in Principle for Sulphur Creek staring with the Letter from National Marine Fisheries Service to California Resources Agency, Re: Pre-Permit Application Agreement in Principle for Sulphur Creek, July 21, 1998

Exhibit 18: *Coast Action Group v. California Regional Water Quality Control Board, et al.*, Memorandum of Points and Authorities in Support of Motion for Summary Judgment, November 1, 1996

Exhibit 19: Various Scientific Literature Supporting the Comment Letter of Richard Gienger starting with "Harvesting Effects on Microclimatic Gradients from Small Streams to Uplands in Western Washington", Brosofske, Chen, Naiman and Franklin, 1997

Exhibit 20: A Section of the Discussion Transcribed from the Citizens Meeting in Freshwater, September 9, 1997

Exhibit 21: Testimony of Department of Fish and Game Wildlife Biologist, Bill Condon to Senate Natural Resources Committee Hearing, November 24, 1997

Exhibit 22: Various Documents Relating to Technical Comments and Brief History of the January 1, 1997 Stafford Slide starting with Letter from the University of Michigan to California Department of Forestry and Fire Protection, Re: Stafford Landslide, June 8, 1997

Exhibit 23: Western Forest HCP Inventory - Finalized Plans

Exhibit 24: Photo Exhibit of Pacific Lumber Lands: Current and Proposed Logging Practices. from KRIS Coho

Exhibit 25: Material Submitted by the United States Environmental Protection Agency

on the Clean Water Act and Applicable Coastal Zone Statutes

Additional Materials Submitted:

- Appendix 3. Documents described in Exhibit 3.
- Forest Ecosystem Management, An Ecological, Economic, and Social Assessment. Report of the Forest Ecosystem Management Assessment Team (the "1993 FEMAT" Report);
- Record of Decision and two volume Final Supplemental EIS for "Option 9" Northwest Forest Plan;
- An Ecosystem Approach to Salmonid Conservation, TR-4501-96-6057 December 1996, Management Technology (the "Mantech" report).
- Kris Coho CD-ROM.
- NOAA Technical Memorandum NMFS-NWFFSC-24, Status Review of Coho Salmon from Washington, Oregon, and California.

G:\DATA\HDWTRS-4\COM\EXHBTS.LST